

CONTRACT CHANGE ORDER MEMORANDUM

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TO: Tony Anziano, Program Manager /			FILE: E.A. 04 - 0120F4	
FROM: Darryl Schram, Senior TE			CO-RTE-PM SF-80-13.2/13.9	
			FED. NO. No	
CCO#: 354	SUPPLEMENT#: 0	Category Code: CHPK	CONTINGENCY BALANCE (incl. this change) \$29,639,001.86	
COST: \$227,127.00 INCREASE <input checked="" type="checkbox"/> DECREASE <input type="checkbox"/>			HEADQUARTERS APPROVAL REQUIRED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
SUPPLEMENTAL FUNDS PROVIDED: \$0.00			IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
CCO DESCRIPTION: CIC Mechanical Impacts - FW Spencer			PROJECT DESCRIPTION: CONSTRUCT SELF-ANCHORED SUSPENSION BRIDGE	
Original Contract Time: 2490 Day(s)	Time Adj. This Change: 0 Day(s)	Previously Approved CCO Time Adjustments: 630 Day(s)	Percentage Time Adjusted: (including this change) 25 %	Total # of Unreconciled Deferred Time CCO(s): (including this change) 1

THIS CHANGE ORDER PROVIDES FOR:

Revise access and working hours for mechanical piping installation, testing, and chlorination operations, due to changes in the character of work resulting after achieving Seismic Safety Opening (SSO) of the bridge.

Contract Change Order (CCO) 160 "East End Delay Impacts", Section 3 "Readiness for Seismic Safety Opening" established a Readiness for Seismic Safety Opening (SSO) date for opening the bridge to traffic of August 28, 2013. This section (Section 3) provides for and compensates the Contractor for the minimum amount of work required to be completed in order to achieve SSO while Section 4 "Post Readiness for Seismic Safety Opening Work" provides for the remaining work to be completed after SSO. The Contractor met the SSO requirement and traffic was placed on the SAS Structure on September 3, 2013 as planned.

In completing the remainder of the Contract work, Section 4 recognized that the Order of Work specified for in Section 3 would have an effect on the post SSO work as well as recognized the potential changes in the character of the work associated with amongst other things the changed condition of having to complete the work under live traffic conditions. While Section 4 identified this concern, the inefficiencies and additional costs associated with the completion of the work under the changed conditions were deferred to a separate change order.

To address the post SSO changes in character of the work, additional costs, and inefficiencies for the remaining work multiple CCO's will be established to provided compensation to the Prime Contractor and each of the affected Subcontractor's. The following CCO's have been identified:

- CCO 342 "Traffic Lane Closures" includes the revised traffic lane and shoulder closure specifications
- CCO 349 "Traffic Control/Construction Access" will address the additional costs associated with implementing traffic control and construction measures,
- CCO 352 "Certified Coatings" will address the additional costs in completing painting the Tower interior, the inside and underside of the Orthotropic Box Girder (OBG), and the bikepath.
- CCO 353 "Bleyco" will address the additional costs in completing the electrical work,
- CCO 354 "FW Spencer" will address the additional costs in completing the piping work,
- CCO 355 "USA Hoist" will address the additional costs in completing the tower elevator installation,
- CCO 356 "ABF" will address the additional costs incurred by the Prime Contractor to support all the remaining work.
- CCO 365 "Dehumidification Systems" will address the additional costs to complete the dehumidification system.
- CCO 375 "Extended Overhead" provides for the additional overhead up to August 24, 2014 due to inefficiencies associated with the performance of post-SSO work.
- CCO 379 "Traveler Rail Gap Modifications" will address the additional costs to complete the traveler rails.
- CCO 382 "Tower Painting Completion" will address the additional costs to cleaning and paint repair on the Tower.
- CCO 384 "Paint Repair Behind Barrier" will repair paint damaged behind and on the barrier rails.
- CCO 388 "Service Platform Paint Repair" will repair damaged paint on the service platforms.

This change order (CCO 354) will provide for post SSO impacts to mechanical piping operations due to working next to live traffic, working at night, and extended travel to and from interior OBG locations. Working next to live traffic will require additional safety supervision, daily mobilizations, changes to the type of equipment used, and will result in inefficiencies. Working at night will also require premium labor time and lighting. Before the bridge was opened to traffic, workers could drive to access points for the interior of the bridge, however most of these access points have been closed and workers will

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now need to walk through the interior of the bridge to reach their work locations.

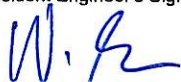
After Bridge opening the SAS Risk Register carried risks to address the potential change in character of work. Two risks in particular were used to address this - "Compensation for POST SSO" and "Schedule: Potential delay during construction - Post Seismic Safety Opening (SSO)". These risks attempt to quantify the possible range of impacts related to the direct cost of the work along with the schedule impacts related to them. The Q3 2013 risk register carries a 50% probable aggregate value of these two risks as \$41M.

In Q1 2014 the change order log carried \$10.2M in direct costs. To date it is anticipated that there will need to be \$17.2M to address direct costs and approximately \$13M to address schedule impacts related to this work. When combined, the known impacts related to the change are on the order of \$30.2M; however a total on the order of \$7M (50% Probable) is expected to be carried in the risk register to address unknowns at the project moves forward.

The total cost of this change order is \$227,127.00 lump sum, which can be financed from the contingency fund. A detailed cost analysis is on file.

No time adjustment is warranted as this change order does not affect the controlling operation.

This change order has concurrence from William Casey (Supervising TE) and Rich Foley (HQ Oversight).

CONCURRED BY:		ESTIMATE OF COST	
Construction Engineer: William Casey, Sup TE	Date 11/17/13	THIS REQUEST	TOTAL TO DATE
Bridge Engineer:	Date	ITEMS	\$0.00
Project Engineer:	Date	FORCE ACCOUNT	\$0.00
Project Manager:	Date	AGREED PRICE	\$227,127.00
FHWA Rep.:	Date	ADJUSTMENT	\$0.00
Environmental:	Date	TOTAL	\$227,127.00
Other (specify): HQ, Rich Foley	Date 11/19/13	FEDERAL PARTICIPATION	
Other (specify): Struct. Maint, Lina Ellis	Date 11/22/13	<input type="checkbox"/> PARTICIPATING <input type="checkbox"/> PARTICIPATING IN PART <input checked="" type="checkbox"/> NONE <input type="checkbox"/> NON-PARTICIPATING (MAINTENANCE) <input type="checkbox"/> NON-PARTICIPATING	
District Prior Approval By: HQ, Sey Hossnieh	Date 3/5/14	FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)	
HQ (Issue Approve) By:	Date	<input type="checkbox"/> CCO FUNDED PER CONTRACT <input type="checkbox"/> CCO FUNDED AS FOLLOWS	
Resident Engineer's Signature:	Date	FEDERAL FUNDING SOURCE	PERCENT
 W. Shedd for Casey		7-18-14	